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JUN 27 1991

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DESCRIPTION OF THE STANDARD TYPE

By

L. H. NEWMAN and J. G. C. FRASER

CEREAL DIVISION
DOMINION EXPERIMENTAL FARMS

DOMINION OF CANADA
DEPARTMENT OF AGRICULTURE
PAMPHLET No. 95—NEW SERIES

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Published by direction of the Hon. W. R. Motherwell, Minister of Agriculture,
Ottawa, 1928

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MARQUIS, OTTAWA 15

HISTORY

Marquis is one of the descendants of a cross made in 1892 by officials of the Central Experimental Farm, Ottawa, Ont., between an early ripening wheat obtained from India under the name Hard Red Calcutta (as female) and Red Fife (as male). It was isolated from other related sorts in 1903 by Dr. C. E. Saunders, who had just been appointed Dominion Cerealists, and was grown in the spring of 1904 in a relatively pure state for the first time in an isolated garden at Ottawa.

It was not until the completion of the baking tests of 1907 that Dr. Saunders finally decided to send out this wheat for trial in Western Canada.

The original Marquis, as first distributed, proved to be rather inconstant in character, producing certain aberrant types of which bearded and brown-chaffed forms were most in evidence. As a consequence, the variety has been subjected to an extensive reselection, the most promising selection made at Ottawa receiving the name Marquis, Ottawa 15. This selection is relatively free from the above types and appears to be reproducing its main characteristics quite regularly, although further improvement in this respect may still be possible.

Many other institutions as well as private individuals have subjected Marquis to a critical analysis, but the prevailing type has not been changed to any appreciable extent. The description of Marquis, O. 15 as given below describes fairly well, therefore, all strains of Marquis now grown except those which have become contaminated by some such agency as natural crossing or mechanical mixing.

ECONOMIC QUALITIES

The economic qualities of Marquis are too well known to require any extended reference at this time. It is only necessary to refer to the reports of the Dominion Experimental Farms for the past ten or fifteen years to ascertain the place it now occupies.

In milling and baking qualities Marquis has been accepted as the standard for some years, as it also has to a large extent in seed exhibitions in Canada and the North Western States.

Its ability to mature several days earlier and to resist lodging better than Red Fife, coupled with its superior yielding capacity, caused it to supersede the latter variety with amazing rapidity until to-day (1928) it occupies prob-

See Report of the Dominion Cerealists, in Dominion Experimental Farms Reports for 1911-12 for further information re the history of Marquis.

ably 80 to 90 per cent of all land devoted to spring wheat production in Western Canada except possibly Manitoba. In the latter province Durum varieties have come to occupy a considerable area owing to their superior rust resistance.

While Marquis appears to suffer less from stem rust than do some other varieties of common wheat, yet this variety may be classed as "susceptible" for all practical purposes.

DISTINGUISHING CHARACTERISTICS OF MARQUIS, OTTAWA 15

Normal Season of Sowing....	Spring.
Time of Maturity.....	Mid season (usually 4 to 7 days earlier than Red Fife).
Height of Plant.....	Mid tall (3"-5" shorter than Red Fife on average).
Colour of Stem.....	Bottle green at heading; white at maturity.
Strength of Stem.....	Strong (inherently stronger than Red Fife by 2 or 3 degrees).
Spike	Shape—Fusiform. Density—Mid dense (10 internodes occupying 48-58 m/m. under normal conditions; lax under abnormal conditions; dense under subnormal conditions).
Spikelet:	
Awns	Absent, except for a few short apical awns which are usually irregular in length (5-50 m/m. long) and in habit.
Empty Glumes	Covering—Glabrous. Colour—White. *Length-width ratio = about 2:1. *Shape—Usually ovate; under some conditions inclined to be more or less rectangular. *Shoulder—Primary glume—oblique, although more pronounced than in Red Fife. Secondary glume—fairly square under normal conditions; rounded to oblique under abnormal conditions; slightly to distinctly elevated under subnormal conditions. *Beak—Always acute; .6 m/m. to 1 m/m. in length; about .8 m/m. in width at base.
Grain	Colour—Red (deeper than in Red Fife). Shape—Ovate; tip rather truncate as a rule. Texture—Hard. Length—5-6 m/m. Germ—Medium sized. Crease—Medium in width and depth. Cheek—Usually quite rounded. Brush—Medium in size and length.

GENERAL REMARKS

Marquis resembles common Red Fife probably more closely than it does any of the other well-established varieties. Generally speaking, the two may be distinguished when mature as follows: The spike of Red Fife is more oblong or

* The glume of the *secondary* floret situated at the *seventh* node from the base of the spike is referred to here.

(Illustrations by F. Hennessey, Entomological Branch, Department of Agriculture, Ottawa.)

rectangular than is that of Marquis, the tip usually being more dense and better developed in the former; the apical awns of Red Fife are more regular in position as a rule than are those of Marquis; the shoulder of the outer glumes of the primary florets of Red Fife is oblique to almost wanting, whereas those of Marquis are quite well defined.

See Plate I, showing normal spike and empty glumes (primary and secondary) taken from spikelet at seventh node from base. Enlarged 2 diameters.

See Plate II, showing abnormal, normal, and subnormal spikes (natural size), together with secondary glumes of each (enlarged two diameters), taken from seventh node from base.

See Plate III, glumes and kernels, Marquis, Ottawa 15—from five different localities.

PLATE I

Two views of normal spike of Marquis, Ottawa 15 (2 diameters)
showing primary glume (1) and secondary glume (2) taken at the seventh
node.



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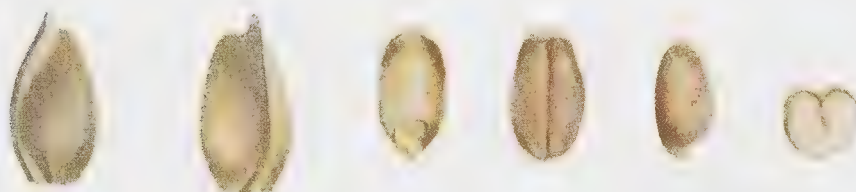
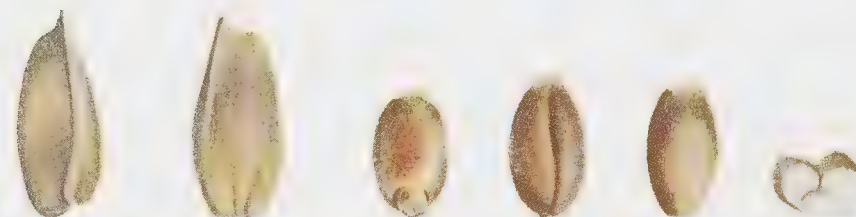
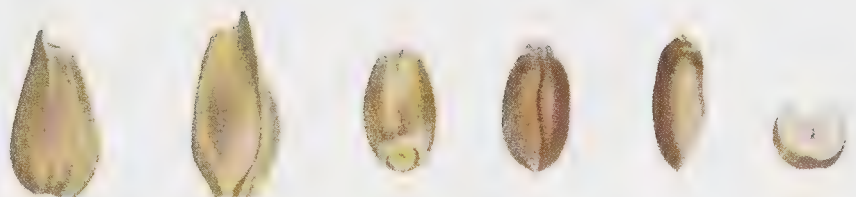
PLATE II

Two views of three heads (natural size) of Marquis, Ottawa 15 showing different degrees of development viz: A Abnormal, B Normal and C Sub-normal. The secondary glume (2 diameters) taken at the seventh node in each case, is also shown.



PLATE III

Showing glumes and Kernels Marquis, Ottawa 15 (3 diameters) from five different localities, viz: 1 Fredericton, N.B.; 2 Kentville, N.S.; 3 Ste. Anne de la Pocatière, P.Q.; 4 Fort Vermilion, Alberta; 5 Beaverlodge, Alberta. a—Primary glume, b—Secondary glume, c—3 positions and transverse section of kernels.



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